

DCI: Waves and Their Applications in Technologies for Information Transfer

1.PS4.A: Wave Properties

Sound can make matter vibrate, and vibrating matter can make sound. (1PS41)

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1.PS4.B: Electromagnetic Radiation

Objects can be seen if light is available to illuminate them or if they give off their own light. (1PS42)

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1.PS4.B: Electromagnetic Radiation

Some materials allow light to pass through them, others allow only some light through and others block all the light and create a dark shadow on any surface beyond them, where the light cannot reach. Mirrors can be used to redirect a light beam. (Boundary: The idea that light travels from place to place is developed through experiences with light sources, mirrors, and shadows, but no attempt is made to discuss the speed of light.) (1PS43)

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1.PS4.C: Information Technologies and Instrumentation

People also use a variety of devices to communicate (send and receive information) over long distances. (1PS44)